



ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL A. ABRACZINSKAS
Director

TBD

Cristopher Miller
Plant Manager
Pilkington, North America, Inc.
13121 South Rocky Ford Road
Laurinburg, NC 28352

SUBJECT: Air Quality Permit No. 03873T34
Facility ID: 8300027
Pilkington, North America, Inc.
Laurinburg, Scotland County, North Carolina
Fee Class: Title V
PSD Class: Major

Dear Mr. Miller:

In accordance with your completed Air Quality Permit Application renewal of a Title V permit, we are forwarding herewith Air Quality Permit No. 03873T34 to Pilkington, North America, Inc., 13121 South Rocky Ford Road, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings.

Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-

22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

Scotland County has triggered PSD Increment Tracking for PM10 and SO2. This permit renewal is not expected to consume or expand any increments for any tracked pollutants.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from TBD until TBD+5 years, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Russell Braswell at 919-707-8731 or russell.braswell@ncdenr.gov.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

cc: Heather Ceron (with review)
Fayetteville Regional Office
Central Files
Connie Horne (cover letter only)

**ATTACHMENT to cover letter to Air Quality Permit Number 03873T34
Pilkington, North America, Inc.**

Table of Changes to Permit No. 03873T33

Page No.*	Condition No.*	Changes
Throughout	Throughout	<ul style="list-style-type: none"> Updated dates/permit numbers Fixed formatting Updated Plant Manager contact info Updated permit language to current DAQ standard, where appropriate. Removed references 02D .0958 because this rule only applies to sources in areas of ozone nonattainment.
Update page numbers in final	Insignificant Activities	<ul style="list-style-type: none"> Moved emergency-use generators to this list.
	Permitted Emission Source List	<ul style="list-style-type: none"> Changed filter size of CD-03ca and CD-03g per applicant's request.
	2.1 B.1.	<ul style="list-style-type: none"> Removed reference to initial testing because it has been completed.
	2.1 D.1	<ul style="list-style-type: none"> Added standard recordkeeping and reporting language.
	2.1 D.3.f	<ul style="list-style-type: none"> Changed reporting look-back period to 17 months (was 14).
	2.1 E.2.e	<ul style="list-style-type: none"> Added recordkeeping requirement for filters CD-03ca and CD-03g.
	2.1 H (former)	<ul style="list-style-type: none"> Removed this section because the emergency-use generators have been moved to the insignificant activities list.
	2.1 G.4.	<ul style="list-style-type: none"> Added paragraph regarding transition date for the Case-by-Case MACT.
	2.1 G.5.	<ul style="list-style-type: none"> Added permit condition for MACT Subpart DDDDD
	2.2 A.	<ul style="list-style-type: none"> Removed references to initial testing requirements because the Permittee has completed them.
	3.	<ul style="list-style-type: none"> Updated General Conditions to v5.2.

* This refers to the current permit unless otherwise stated.

Insignificant Activities under 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES06e	Lime storage silo with bagfilter (ID No. ICD-06h)
IF1	cullet pile
IK1	one direct-fired natural gas-fired glass heat soak oven
IPW1 through IPW3	three parts washing systems
IMS-1	Intec ink marking system
ICLLOL	Off-Line Cutting Process
IG	Hydrogen generation process
IT1 through IT3	three vehicular diesel fuel tanks
ICT1	Water Cooling Tower
IES-Silo24	Sodium bicarbonate silos controlled by bin vent filter
IEG1, IEG2, IEG3, IEG4 (MACT, ZZZZ)	Four emergency-use diesel-fired generators (436 horsepower, each)
IEG8 (MACT, ZZZZ)	One emergency-use diesel-fired compressor (350 horsepower)
IEG5, IEG6, IEG7 (MACT, ZZZZ)	Three emergency-use gasoline-fired generator (132 horsepower, each)
IEG9 (MACT, ZZZZ)	One emergency-use gasoline-fired generator (132 horsepower)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 "Control of Toxic Air Pollutants" or 02Q .0711 "Emission Rates Requiring a Permit."
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows:
<http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.



State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03873T34	03873T33	TBD	TBD+5 years

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Pilkington, North America, Inc.**

Facility ID: **8300027**

Facility Site Location: **13121 South Rocky Ford Road**
City, County, State, Zip: **Laurinburg, Scotland County, North Carolina 28352**

Mailing Address: **13121 South Rocky Ford Road**
City, State, Zip: **Laurinburg, North Carolina 28352**

Application Number(s): **8300027.18A**
Complete Application Date: **March 26, 2018**

Primary SIC Code: **3211**
Division of Air Quality, **Fayetteville Regional Office**
Regional Office Address: **225 Green Street, Suite 714**
Fayetteville, North Carolina 28301-5043

Permit issued this the **TBD day of TBD.**

William D. Willets, P.E., Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION
CONTROL DEVICES AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Sources Specific Limitations and Conditions (Including specific
requirements, testing, monitoring, recordkeeping, and reporting requirements)

2.2- Multiple Emission Sources Specific Limitations and Conditions (Including specific
requirements, testing, monitoring, recordkeeping, and reporting requirements)

2.3- Other Applicable Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT:

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Update page numbers in final	ES-01	Natural gas fired float glass melting furnace (39.0 tons per hour maximum draw rate and 300 million Btu per hour maximum heat input) with oxygen enrichment and water spray consisting of a melter, glass refiner, and annealing Lehr	N/A	N/A
	ES-02 PSD	Natural gas fired float glass melting furnace (45.8 tons per hour maximum raw material input rate and 300 million Btu per hour maximum heat input), with oxygen enrichment and water spray consisting of a melter firing, glass refiner, and annealing Lehr	N/A	N/A
RAW MATERIAL UNLOADING, STORAGE, AND TRANSFER				
	ES-03a ¹	Choke-fed truck/rail dump pit with a roof and two-sided enclosure	CD-03a	fabric filter with 678 square feet of filter area
	ES-03c ¹ and ES-03g ¹	Two raw material storage silos	CD-03ca	baghouse with at least 3,700 square feet of filter area
			CD-03g	baghouse with at least 200 square feet of filter area

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
BATCH AND CULLET HANDLING OPERATIONS FOR FLOAT GLASS PRODUCTION LINE #1				
	ES-04c ¹	Raw material and cullet mixing operations including: lower mixing section with batch material and cullet feeding and	CD-05	fabric filter with 13,516 square feet of filter area
		upper mixing section with batch cullet cross-over belts and turnouts	CD-19	fabric filter with 9,600 square feet of filter area
	ES-06 ¹	Batch charging operation (Doghouse)	CD-06	fabric filter with 5,385 square feet of filter area
	ES-08 ¹	Cold end cullet handling operation	CD-08	fabric filter with 24,384 square feet of filter area
	ES-21 ² CAM	Float #1 cullet yard transfer and bin operation	CD-22 ³	fabric filter with 7,232 square feet of filter area
	ES-17 CAM	Hot end cullet handling/ return operation	CD-17	fabric filter with 2,856 square feet of filter area
BATCH AND CULLET HANDLING OPERATIONS FOR FLOAT GLASS PRODUCTION LINE #2				
	ES-04d ¹ PSD	Raw material and cullet mixing operations including: a lower mixing section with batch material and cullet feeding and	CD-05	fabric filter with 13,516 square feet of filter area
		upper mixing section with batch cullet cross-over belts and turnouts	CD-19	fabric filter with 9,600 square feet of filter area
	ES-07 ¹ PSD	Batch charging operation (Flopper)	CD-07	fabric filter with 13,516 square feet of filter area
	ES-18 ¹ PSD	Cold end cullet handling operation	CD-18	fabric filter with 24,480 square feet of filter area
	ES-22 ⁴ PSD; CAM	Float #2 cullet yard transfer and bin operation	CD-22 ³	fabric filter with 7,232 square feet of filter area
	ES-23 ⁵ PSD; CAM	Hot end cullet handling/return operation	CD-23 ³	fabric filter with 7,450 square feet of filter area

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
COATING OPERATIONS				
	ES-06b CAM	Low E glass coating operation	CD-06d	thermal oxidizer (nine million Btu per hour heat input capacity)
			CD-06e	lime neutralization process (minimum of 20 pounds of lime injection per hour)
			CD-06f	fabric filter with 3,876 square feet of filter area
CUTTING OPERATIONS				
	ES-CL1	Line #1 Cutting Process	N/A	N/A
	ES-CL2	Line #2 Cutting Process	N/A	N/A
BOILERS				
	ES-B1 Case-by-Case MACT; MACT, DDDDD	Line #1 image automation natural gas-fired boiler (0.8 million Btu per hour maximum heat input; Teldyn HLM2933)	N/A	N/A
	ES-B3 Case-by-Case MACT; MACT, DDDDD	Line #2 Low E process natural gas-fired boiler (3.35 million Btu per hour maximum heat input; Cleaver Brooks MN CB-700-80)	N/A	N/A
	ES-B4 Case-by-Case MACT; MACT, DDDDD	Line #2 Image automation natural gas-fired boiler (0.6 million Btu per hour maximum heat input); Precision Boilers C00L13442	N/A	N/A

- 1 This equipment may operate while venting indoors during bagfilter maintenance.
- 2 Emissions unit that was part of the original facility and subject to the 1979 PSD modification.
- 3 Control device additions of the T24 permit revision to comply with BACT requirements of 1979 Float #2 source additions
- 4 Emissions unit that was part of the 1979 PSD addition of Float #2.
- 5 Previously permitted as ID No. ES19

SECTION 2- SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Sources and Control Devices Specific Limitations and Conditions

The emission sources and associated air pollution control devices and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Natural gas fired float glass melting furnace (with oxygen enrichment and water spray) consisting of a melter, glass refiner, and annealing Lehr (ID No. ES-01)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$For P \leq 30, E = 4.10 \times P^{0.67}$ $For P > 30, E = 55.0 \times P^{0.11} - 40$ Where E = allowable emissions rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
visible emissions	20 percent opacity	15A NCAC 02D .0521
TAPs	See Sections 2.2 A.1 and 2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1100
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the float glass melting furnace (ID No. ES-01) shall not exceed an allowable emission rate as calculated by the following equations:

$$For P \leq 30, E = 4.10 \times P^{0.67}$$

$$For P > 30, E = 55.0 \times P^{0.11} - 40$$

Where

E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Recording [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this float glass melting furnace.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from combustion of fuel combined with the decomposition of sulfates in the batch in this furnace (**ID No. ES-01**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas for this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the float glass melting furnace (**ID No. ES-01**) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c.
 - i. To ensure compliance, once a day the Permittee shall observe the emission points of the float glass melting furnace (**ID No. ES-01**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a (or b) above.
 - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
 - (A) the above-normal emissions are not corrected per c.i.(A) above;

- (B) the demonstration in c.i.(B) above cannot be made; or
- (C) the daily observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 A.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Natural gas fired float glass melting furnace (with oxygen enrichment and water spray) consisting of a melter, glass refiner, and annealing Lehr (ID No. ES-02)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$For P \leq 30, E = 4.10 \times P^{0.67}$ $For P > 30, E = 55.0 \times P^{0.11} - 40$ Where E = allowable emissions rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
visible emissions	40 percent opacity	15A NCAC 02D .0521
particulate matter PSD	42.9 pounds per hour	15A NCAC 02D .0530
sulfur dioxide PSD	0.5 pounds per million Btu heat input when firing natural gas	15A NCAC 02D .0530
TAPs	See Sections 2.2 A.1 and 2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1100
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the float glass melting furnace (**ID No. ES-02**) shall not exceed an allowable emission rate as calculated by the following equations:

$$For P \leq 30, E = 4.10 \times P^{0.67}$$

$$For P > 30, E = 55.0 \times P^{0.11} - 40$$

Where

E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. i. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) above by testing the Float Glass Melting Furnace (**ID No. ES-02**) for opacity and particulate matter in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in General Condition JJ. Testing shall be performed biennially (between 22 and 26 months after the previous emission test) unless otherwise approved by the DAQ. If the results of this test are above the limit given in Section 2.1 B.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

- ii. If additional emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Recording [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this float glass furnace.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from combustion of fuel combined with the decomposition of sulfates in the batch in this furnace (**ID No. ES-02**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the burning of natural gas for this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this float glass melting furnace (**ID No. ES-02**) shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c.
 - i. To ensure compliance, once a day the Permittee shall observe the emission points of the float glass melting furnace (**ID No. ES-02**) for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3.a (or b) above.
 - ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
 - (A) the above-normal emissions are not corrected per c.i.(A) above;
 - (B) the demonstration in c.i.(B) above cannot be made;

(C) the daily observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The Permittee shall not exceed the particulate and sulfur dioxide emissions limits listed below:

Emission Source	Pollutant	BACT Limits
float glass melting furnace (ID No. ES-02)	particulate matter	42.9 pounds per hour
	sulfur dioxide	0.5 pounds per million Btu heat input from the firing of natural gas

Testing [15A NCAC 02Q .0508(f)]

- b. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits above by testing the float glass furnace (**ID No. ES-02**) and as required by 2.1 B.1.b., above for particulate matter emissions in accordance with a testing protocol approved by the DAQ. If the results of this test are above the particulate matter emissions limit given in Section 2.1 B.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- c. If additional emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- d. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the burning of natural gas in this source.

C. The following sources:

- Float #1 cullet yard transfer and bin operation (**ID No. ES-21**) with fabric filter (**ID No. CD-22**)
- Raw material and cullet mixing operations (**ID No. ES-04d**) including:
 - a lower mixing section with batch material and cullet feeding with fabric filter (**ID No. CD-05**); and
 - upper mixing section with batch cullet cross-over belts and turnouts (**ID No. CD-19**)
- Batch charging operation (**ID No. ES-07**) with fabric filter (**ID No. CD-07**)
- Cold end cullet handling operation (**ID No. ES-18**) with fabric filter (**ID No. CD-18**)
- Float #2 cullet yard transfer and bin operation (**ID No. ES-22**) with fabric filter (**ID No. CD-22**)
- Hot end cullet handling/return operation (**ID No. ES-23**) with fabric filter (**ID No. CD-23**)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity	15A NCAC 02D .0521
particulate matter	0.8 pounds per hour total	15A NCAC 02D .0530
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711
PM10	Continuous Assurance Monitoring 40 CFR 64. (See Section 2.3 B.1.)	15A NCAC 02D .0614

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these batch and cullet handling operations (**ID Nos. ES-04d, ES-07, ES-18, ES-21, ES-22, and ES-23**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. i. To ensure compliance, once a week the Permittee shall observe the emission points of the batch and cullet handling operations (**ID Nos. ES-04d, ES-07, ES-18, ES-21, ES-22, and ES-23**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:

- (A) the above-normal emissions are not corrected per c.i.(A) above;
- (B) the demonstration in c.i.(B) above cannot be made; or
- (C) the weekly observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 B.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. In accordance with the Best Available Control Technology determination, the sum of particulate emissions from the following sources shall not exceed 0.8 pounds per hour.

Batch and Cullet Handling Operations for Float Glass Production Line #2 including:

- i. raw material and cullet lower mixing section with batch material and cullet feeding and raw material and cullet upper mixing section with batch cullet cross-over belts and turnouts (**ID No. ES-04d**)
- ii. batch charging operation (**ID No. ES07, Flopper**)
- iii. cold end cullet handling operation (**ID No. ES18**)
- iv. Float #1 cullet yard transfer and bin operation (**ID No. ES21**),
- v. cullet yard transfer and bin operation (**ID No. ES22**), and
- vi. hot end cullet handling/return operation (**ID No. ES23**).

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the batch and cullet handling operations (**ID Nos. ES-04d, ES-07, ES-18, ES-21, ES-22, and ES-23**) shall be controlled by fabric filters (**ID Nos. CD-22, CD-05, CD-19, CD-07, CD-18, CD-22, and CD-23**) as described in Section 1. To ensure compliance, the Permittee shall perform inspections and maintenance as outlined in a site-specific maintenance and inspection plan. The plan shall consider operating experience, manufacturer's guidance and at a minimum shall include the following:

- i. weekly monitoring of the pressure drop indicator on each fabric filter during operation. The pressure drop across each bagfilter shall be maintained within the range that is determined to be acceptable for each bagfilter application taking into account operating conditions and manufacturer's recommendations;
- ii. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
- iii. an annual (for each 12-month period following the initial inspection) internal inspection of the baghouse structural integrity and fabric filter condition.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the ductwork and fabric filters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspections and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action including the weekly pressure drop;
 - ii. the results of each bagfilter inspection;
 - iii. the results of any maintenance performed on the bagfilters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.1 C.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Low E glass coating operation (ID No. ES-06b) with thermal oxidizer (ID No. CD-06d) in series with lime neutralization process (ID No. CD-06e) in series with fabric filter (ID No. CD-06f)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$\text{For } P \leq 30, \quad E = 4.10 \times P^{0.67}$ $\text{For } P > 30, \quad E = 55.0 \times P^{0.11} - 40$ <p>Where E = allowable emissions rate in pounds per hour P = process weight in tons per hour</p>	15A NCAC 02D .0515
visible emissions	20 percent opacity	15A NCAC 02D .0521
fluorides	less than 3 tons per year	15A NCAC 02Q .0317 (PSD Avoidance)
TAPs	See Sections 2.2 A.1 and 2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1100
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711
PM10	Continuous Assurance Monitoring 40 CFR 64. (See Section 2.3 B.1.)	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the Low-E glass coating operation (**ID No. ES-06b**) shall not exceed an allowable emission rate as calculated by the following equations:

$$\text{For } P \leq 30, \quad E = 4.10 \times P^{0.67}$$

$$\text{For } P > 30, \quad E = 55.0 \times P^{0.11} - 40$$

Where

E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from the Low-E glass coating operation (**ID No. ES-06b**) following the lime neutralization process shall be controlled by one bagfilter (**ID Nos. CD-06f**) as described in Section 1. To ensure compliance, the Permittee shall perform inspections and maintenance as outlined

in a site-specific maintenance and inspection plan. The plan shall consider operating experience, manufacturer's guidance and at a minimum shall include the following:

- i. Daily (for each day where the coating line is in operation) monitoring of the pressure drop indicator on each bagfilter during operation. The pressure drop across the bagfilter shall be maintained within the range that is determined to be acceptable for the bagfilter application taking into account operating conditions and manufacturer's recommendations;
- ii. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
- iii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on any control device; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 D.1.c and d., above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the Low-E glass coating operation (**ID No. ES-06b**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. i. To ensure compliance, once a month, the Permittee shall observe the emission points of the Low-E glass coating operation (**ID No. ES-06b**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with

this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a (or b) above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:

- (A) the above-normal emissions are not corrected per c.i.(A) above;
- (B) the demonstration in c.i.(B) above cannot be made;
- (C) the monthly observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 D.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**3. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for
15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the Low-E glass coating operation (**ID No. ES-06b**) shall discharge into the atmosphere less than 3 tons of fluorides (as fluorine, excluding hydrogen fluoride), per consecutive 12-month period.
- b. To ensure fluoride emissions do not exceed 3 tons for any consecutive 12-month period, the following restrictions shall apply:
 - i. The maximum fluoride input into the coating operations shall not exceed 172 pounds per hour and 1,000,000 pounds per consecutive 12-month period.
 - ii. Emissions from coating operations (**ID No. ES-06b**) shall each be controlled by a thermal oxidizer (**ID No. CD-06d**) in series with a lime neutralization process (**ID No. CD-06e**) and bagfilter (**ID No. CD-06f**).

Testing [15A NCAC 02Q .0508(f)]

- c. If emissions testing is required, the Permittee shall perform such testing in accordance and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.3.a., the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring [15A NCAC 02Q .0508(f)]

- d. Fluoride emissions from the Low-E glass coating operation (**ID No. ES-06b**) shall be controlled by a thermal oxidizer, a lime neutralization system, and a bagfilter (**ID Nos. CD-06d, CD-06e, and CD-06f**) as described in Section 1. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. A reading of the lime feed rate of each lime neutralization system once every 24 hours when the associated coating line is in operation to ensure the five-minute average injection rate is a minimum of 20 pounds per hour;
 - ii. A reading of the temperature gauge in the second half of the thermal oxidizer once every 24 hours when the associated coating line is in operation to ensure the combustion temperature remains above 1400 °F;
 - iii. Monitoring of the pressure drop indicator on each bagfilter once every 24 hours when the associated coating line is in operation. The pressure drop across each bagfilter shall be maintained within the range established and documented by the bagfilter manufacturer;
 - iv. A monthly visual inspection of the system ductwork and material collection units for leaks when the associated coating line is in operation; and
 - v. An annual (for each 12-month period following the initial inspection) internal inspection of the structural integrity of the thermal oxidizers, the heat exchangers and dry reactors associated with the lime neutralization system, and the bagfilters.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the ductwork, thermal oxidizers, lime neutralization systems, and bagfilters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- e. The results of inspections and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the thermal oxidizers, lime neutralization systems, and bagfilters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on the thermal oxidizers, lime neutralization equipment, and bagfilters within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 D.3.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

- i. The monthly fluoride emissions from the coating operations (**ID No. ES-06b**) for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
- ii. The monthly quantities of fluoride used in the coating operations (**ID No. ES-06b**) for the previous 17 months. The quantities must be calculated for each of the 12-month periods over the previous 17 months.
- iii. All instances of deviations from the requirements of this permit must be clearly identified.

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E. The following sources:

- Choke-fed truck/rail dump pit with a roof and two-sided enclosure (**ID No. ES-03a**) with fabric filter (**ID No. CD-03a**)
- Raw material storage silo (**ID No. ES-03c**) with fabric filter (**ID No. CD-03ca**)
- Raw material storage silo (**ID No. ES-03g**) with fabric filter (**ID No. CD-03g**)
- Raw material and cullet mixing operations (**ID No. ES-04c**) including:
 - lower mixing section with batch material and cullet feeding with fabric filter (**ID No. CD-05**) and
 - upper mixing section with batch cullet cross-over belts and turnouts with fabric filter (**ID No. CD-19**)
- Batch charging operation (Doghouse; **ID No. ES-06**) with fabric filter (**ID No. CD-06**)
- Cold end cullet handling operation (**ID No. ES-08**) with fabric filter (**ID No. CD-08**)
- Hot end cullet handling/ return operation (**ID No. ES-17**) with fabric filter (**ID No. CD-17**)

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate matter	$For P \leq 30, E = 4.10 \times P^{0.67}$ $For P > 30, E = 55.0 \times P^{0.11} - 40$ Where E = allowable emissions rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
visible emissions	20 percent opacity	15A NCAC 02D .0521
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711
PM10	<i>for only ES-17</i> Continuous Assurance Monitoring 40 CFR 64. (See Section 2.3 B.1.)	15A NCAC 02D .0614

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from the raw material unloading, storage, and transfer operations (**ID Nos. ES-03a, ES-03c, and ES-03g**), and the batch and cullet handling operations (**ID Nos. ES-04c, ES-06, ES-08, and ES-17**) shall not exceed an allowable emission rate as calculated by the following equations:

$$For P \leq 30, E = 4.10 \times P^{0.67}$$

$$For P > 30, E = 55.0 \times P^{0.11} - 40$$

Where

E = allowable emissions rate in pounds per hour

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a., above the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions from these sources (**ID Nos. ES-03a, ES-03c, ES-03g, ES-04c, ES-06, ES-08, and ES-17**) are controlled by nine bagfilters (**ID Nos. CD-03a, CD-03ca, CD-03g, CD-05, CD-19, CD-06, CD-08, CD-17**) as described in Section 1. To ensure compliance, the Permittee shall perform inspections and maintenance as outlined in a site-specific maintenance and inspection plan. The plan shall consider operating experience, manufacturer's guidance and at a minimum shall include the following:
 - i. Weekly monitoring of the pressure drop indicator on each bagfilter during operation. The pressure drop across each bagfilter shall be maintained within the range that is determined to be acceptable for each bagfilter application taking into account operating conditions and manufacturer's recommendations;
 - ii. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - iii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of inspections and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each inspection;
 - iii. The results of any maintenance performed on the bagfilters; and
 - iv. Any variance from manufacturer's recommendations, if any, and corrections made.
- e. The Permittee shall keep a record of the total filter area of the bagfilters **CD-03ca and CD-03g**.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- f. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.1 E.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the raw material unloading, storage, and transfer operations (**ID Nos. ES-03a, ES-03c, and ES-03g**) and the batch and cullet handling operations (**ID Nos. ES-04c, ES-06, ES-08,**

and ES-17) shall not be more than **20 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring [15A NCAC 02Q .0508(f)]

- c. i. To ensure compliance, once a week, the Permittee shall observe the emission points of the raw material unloading, storage, and transfer operations (**ID Nos. ES-03a, ES-03c, and ES-03g**) and the batch and cullet handling operations (**ID Nos. ES-04c, ES-06, ES-08, and ES-17**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.2.a above.
- ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
 - (A) the above-normal emissions are not corrected per c.i.(A) above;
 - (B) the demonstration in c.i.(B) above cannot be made; or
 - (C) the weekly observations are not conducted per c.i above.

Recordkeeping [15A NCAC 02Q .0508(f)]

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- e. The Permittee shall submit a summary report of the observations postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Lines #1 and #2 Cutting Processes (ID No. ES-CL1 and ES-CL2):

The following table provides a summary of limits and standards for the emission source described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806
ethyl acetate	Facility-wide emission limit; see Section 2.2 B.1. STATE ENFORCEABLE ONLY	15A NCAC 02Q .0711

G. Boilers:

- Line #1 natural gas-fired boiler (**ID No. ES-B1**)
- Line #2 Low E natural gas-fired boiler (**ID No. ES-B3**)
- Line #2 Image Automation natural gas-fired boiler (**ID No. ES-B4**)

The following table provides a summary of limits and standards for the emission source(s) described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	0.60 pounds per million Btu	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
Opacity	20% opacity	15A NCAC 02D .0521
HAPs	Best Combustion Practices	15A NCAC 02D .1109
HAPs	MACT emission standards See Section 2.1 G.5.	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)
odors	Odorous emissions must be controlled/prevented. See Section 2.2 B.2. STATE ENFORCEABLE ONLY	15A NCAC 02D .1806

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas that are discharged from the affected boilers (**ID Nos. ES-B1, ES-B3, and ES-B4**) into the atmosphere shall not exceed 0.60 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limits given in Section 2.1 G.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in these sources.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the affected boilers (**ID Nos. ES-B1, ES-B3, and ES-B4**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with 02DGeneral Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for natural gas from the firing of natural gas in these sources.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from the affected boilers (**ID Nos. ES-B1, ES-B3, and ES-B4**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.3.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources.

4. 15A NCAC 02D .1109: 112(j) CASE-BY-CASE MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (Case-by-Case MACT for Boilers & Process Heaters)

- a. The Permittee shall use best combustion practices when operating the affected boilers (**ID Nos. ES-B1, ES-B3, and ES-B4**).
- b. The Permittee shall comply with this §112(j) standard through May 19, 2019. The Permittee shall be subject to the requirements of the 40 CFR Part 63 (see Section 2.1 G.5.) standard starting May 20, 2019. Note that the requirements of that standard may require action on behalf of the Permittee prior to May 20, 2019.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- b. To ensure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
 - i. Inspect the burner, and clean or replace any components of the burner as necessary;
 - ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
 - iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct a least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the affected boilers are not inspected and maintained as required above.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date of each recorded action;
 - ii. The results of each inspection; and,
 - iii. The results of any maintenance performed on the boilers.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

- d. No reporting is required for hazardous air pollutants from the firing of natural gas in these sources.

**5. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
(40 CFR Part 632, Subpart DDDDD)**

Applicability [40 CFR 63.7485, .7490(d), .7499(l)]

- a. i. For the boilers (**ID Nos. ES-B1, B3, and B4**; existing units designed to burn gas 1 fuels with a heat input capacity of less than or equal to 5 million Btu per hour), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD, "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."
- ii. The Permittee shall comply with the CAA §112(j) standard in Section 2.1 G.4. through **May 19, 2019**. The Permittee shall be subject to the requirements of this standard starting May 20, 2019. Note that the requirements of this standard may require action on behalf of the Permittee prior to May 20, 2019.

Definitions and Nomenclature [40 CFR 63.7575]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

- c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD.

Compliance Date [40 CFR 63.7510(e), 63.56(b)]

- d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019.

Notifications [40 CFR 63.7545(e)(8), 63.7530(e),(f)]

- e. The Permittee shall submit a Notification of Compliance Status. The notification must be signed by a responsible official and sent before the close of business on the 60th day following the completion of the initial tune up and one time energy assessment (whichever is later). The notification shall contain the following:
 - i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.
 - ii. the following certification(s) of compliance, as applicable:
 - (A) "This facility completed the required initial tune-up for all of the boilers and process heaters covered by 40 CFR 63 Subpart DDDDD at the site according to the procedures in.40 CFR 63.7540(a)(10)(i) through (vi)' [i.e., Sections 2.1 G.1.f.i through v and l.ii]; and
 - (B) "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)" [i.e., Section 2.1 G.1.k] and is an accurate depiction of the facility at the time of the

assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

Work Practice Standards [15A NCAC 02Q .0508(f)]

- f. The Permittee shall conduct a tune-up of the process heater every five years as specified below.
 - i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but the burner must be inspected at least once every 72 months
 - ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
 - iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown)
 - iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_x requirement to which the unit is subject.
 - v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
[40CFR 63.7500(a), (e), 63.7540(a)(10), (a)(12)]
- g. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. [40CFR 63.7515(d)]
- h. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7540(a)(13), 63.7515(g)]
- i. At all times, you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.[40 CFR 63.7500(a)(3)]
- j. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 G.1.f through i are not met.

Energy Assessment Requirements [15A NCAC 02Q .0508(f)]

- k. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must address the requirements in 40 CFR 63 Subpart DDDDD, Table 3, with the extent of the evaluation for items (a) to (e) in Table 3 appropriate for the on-site technical hours listed in §63.7575: [§63.7500(a)(1), Table 3] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Recordkeeping Requirements [15A NCAC 02Q .0508(f), 40 CFR 63.7555]

- l. The Permittee shall keep the following:
 - i. A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status, or 5-year

compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]

- ii. Maintain on-site and submit, if requested by the Administrator, a report containing the information in paragraphs (A) through (C) below:

- (A) The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after tune-up of the boiler or process heater;

- (B) A description of any corrective actions taken as a part of the tune-up; and

- (C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.

[40 CFR 63.7540(a)(10)(vi)]

- iii. The associated records for Sections 2.1 G.1.e through k.

- m. The Permittee shall:

- i. maintain records in a form suitable and readily available for expeditious review;

- ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and

- iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.

[40 CFR 63.7560, 63.10(b)(1)]

- n. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained as described in Sections 2.1 G.1.l through m.

Reporting Requirements [15A NCAC 02Q .0508(f)]

- o. The Permittee shall submit compliance reports to the DAQ on a 5-year basis. The first report shall cover the period beginning on May 20, 2019 and ending on December 31, 2023 . Subsequent 5-year reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 31.[40 CFR 63.7550(a), (b)]

- p. The compliance report must also be submitted electronically via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (<https://cdx.epa.gov/>.) You must use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for this subpart, you may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (<http://www.epa.gov/ttn/chief/cedri/index.html>), once the XML schema is available. If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, you must submit the report to the Administrator at the appropriate address listed in §63.13. You must begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]

- q. The compliance report must contain the following information:

- i. Company name and address;

- ii. Process unit information, emissions limitations, and operating parameter limitations;

- iii. Date of report and beginning and ending dates of the reporting period;

- iv. Include the date of the most recent tune-up for each unit required according to Section 2.1 G.1.f. Include the date of the most recent burner inspection if it was not done as scheduled and was delayed until the next scheduled or unscheduled unit shutdown.
 - v. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.
- [40 CFR 63.7550(a) and (c), Table 9]

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2.2- Multiple Emission Sources Specific Limitations and Conditions

A. The following sources:

- Two natural gas-fired float glass furnaces (ID Nos. ES-01 and ES-02)
- Low E glass coating operation (ID No. ES-06b) with thermal oxidizer (ID No. CD-06d) in series with lime neutralization process (ID No. CD-06e) in series with fabric filter (ID No. CD-06f)

STATE ENFORCEABLE ONLY

1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. In accordance with the approved application for an air toxic compliance demonstration (approved September 26, 2006), the following permit limits shall not be exceeded:

EMISSION SOURCE	TOXIC AIR POLLUTANTS	EMISSION LIMITS
Furnace 75F1 (ID No. ES-01)	Benzene	26,017 pounds per year
	Sulfuric Acid	152 pounds per hour
		1,077 pounds per day
	n-Hexane	6,768 pounds per day
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	72 pounds per day
Furnace 75F2 (ID No. ES-02)	Benzene	26,017 pounds per year
	Sulfuric Acid	229 pounds per hour
		1,617 pounds per day
	n-Hexane	6,768 pounds per day
	Soluble Chromate Compounds, as Chromium (VI) Equivalent	72 pounds per day
Low E Glass Coating Operation (ID No. ES-06b)	n-Hexane	432 pounds per day

Testing [15A NCAC 02D .0611]

- b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ.

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0611]

- c. In all cases the potential TAP emission rates for this facility during normal operations are significantly less than the permitting emission limits provided above. No monitoring/recordkeeping/reporting is required to demonstrate compliance with the TAP emissions limitations provided above.

STATE ENFORCEABLE ONLY

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. In accordance with the application for an air toxic compliance demonstration (approved on September 30, 2011), the following permit limits shall not be exceeded:

ID No.	Emission Source	Pollutant (CAS No.)	Allowable Emission Rates
ES-01	Furnace No.1	Hydrogen chloride (7641-01-0)	9.49 pounds per hour
		Hydrogen fluoride (7664-39-3)	6.81 pounds per hour
			45.7 pounds per 24 hours
		Fluorides (NA)	4.8 pounds per hour
			17.1 pounds per 24 hours
ES-02	Furnace No. 2	Hydrogen chloride (7641-01-0)	9.61 pounds per hour
		Hydrogen fluoride (7664-39-3)	6.81 pounds per hour
			45.7 pounds per 24 hours
		Fluorides (NA)	4.8 pounds per hour
			17.1 pounds per 24 hours
ES-06b	Low E glass coating operation	Hydrogen chloride (7641-01-0)	5.53 pounds per hour
		Hydrogen fluoride (7664-39-3)	2.04 pounds per hour
			13.3 pounds per 24 hours
		Fluorides (NA)	2.16 pounds per hour
			7.6 pounds per 24 hours

Testing [15A NCAC 02D .0611]

- b. i. The Permittee has demonstrated initial compliance with the emission limits listed in Section 2.2 A.2.a. (test reference number 2014-059ST).
- ii. If additional emissions testing is required, the testing shall be performed in accordance General Condition JJ.

Monitoring [15A NCAC 02D .0611]

- c. To ensure toxic air pollutant emissions do not exceed the emissions limits in Section 2.2.A.2.a. above, the following restrictions shall apply:
- i. The maximum fluoride input into the coating operation (**ID No. ES-06b**) shall not exceed 172 pounds per hour and 1,000,000 pounds per consecutive 12-month period.
- ii. Emissions from the coating operation (**ID No. ES-06b**) shall be controlled as described in Table 2.2.A. above.
- d. The Permittee shall perform inspections, maintenance and recordkeeping in accordance with the monitoring requirements given in Section 2.1. D.3.d. above.

Recordkeeping [15A NCAC 02D .0611]

- e. The Permittee shall maintain chemical usage records in a logbook (written or electronic format) as necessary to determine compliance with the limits given in 2.2.A.2.a. above. The Permittee shall maintain these records for a period of five years from the date of recording.

Reporting [15A NCAC 02D .0611]

- f. The Permittee shall submit the results of any maintenance performed on the pollution control equipment within 30 days of a written request by the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.2 A.2.c through e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Facility-wide Emission Sources

The following table provides a summary of limits and standards for the emission sources describe above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	<u>State-Enforceable Only</u> odorous emissions must be controlled	15A NCAC 02D .1806
ethyl acetate	<u>State-Enforceable Only</u> 36 pounds per hour	15A NCAC 02Q .0711

STATE ENFORCEABLE ONLY

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

- a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

STATE ENFORCEABLE ONLY

2. 15A NCAC 02Q.0711: EMISSION RATES REQUIRING A PERMIT

- a. The facility shall be operated and maintained in such a manner that emissions of toxic air pollutants (TAPs), excluding those TAPs permitted pursuant to 15A NCAC 02D .1100, do not exceed the toxic pollutant emission rates (TPERs) listed in 15A NCAC 02Q .0711. Regulated TAPs and associated TPERs include the following:

Emission Sources	Toxic Air Pollutants	TPER
facility-wide sources	ethyl acetate	36 pounds per day

2.3- Other Applicable Requirements

A. Sources affected by Section 112(r) of the Clean Air Act

1. 15A NCAC 02D .2100: RISK MANAGEMENT PROGRAM

- a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in 15A NCAC 02D .2100, "Risk Management Program," as promulgated in 40 CFR Part 68.

Recordkeeping/Reporting [15A NCAC 02Q .0508(f), 15A NCAC 02Q .0508(h)]

- b. The Permittee submitted an update to the Risk Management Plan (RMP) to EPA pursuant to 40 CFR 68.150 on September 3, 2014.
- c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 no later than September 1, 2019 and at least every five years after that date or most recent update as required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.
- d. When the Permittee submits the Annual Compliance Certification required by General Condition P, the Permittee shall include a statement that the facility is in compliance with all requirements of 15A NCAC 02D .2100, including the registration and submission of the risk management plan.

B. The following CAM-affected sources

- Float #1 cullet yard transfer and bin operation (ID No. ES-21) with fabric filter (ID No. CD-22)
- Float #2 cullet yard transfer and bin operation (ID No. ES-22) with fabric filter (ID No. CD-22)
- Hot end cullet handling/ return operation (ID No. ES-17) with fabric filter (ID No. CD-17)
- Hot end cullet handling/return operation (ID No. ES-23) with fabric filter (ID No. CD-23)
- Low E glass coating operation (ID No. ES-06b) with thermal oxidizer (ID No. CD-06d) in series with lime neutralization process (ID No. CD-06e) in series with fabric filter (ID No. CD-06f)

The following table provides a summary of limits and/or standards for the emission source(s) described above.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 02D .0614

1. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. In order to assure compliance with 15A NCAC 02D .0515 and .0530, the Permittee shall operate the emission sources with the associated control devices listed in Section 2.3 B.

Monitoring [15A NCAC 02Q .0508(f)].

- b. The Permittee shall comply with the monitoring approach as included in the following Table:

A. General Criteria		
1. Indicators	1. Pressure drop (ΔP) across bagfilters	2. Visible emissions
2. Measurement Approach	ΔP across the filters is continuously measured with differential pressure gauges	Visible emissions from the control equipment will be monitored daily using EPA Reference Method 22-like procedures
3. Indicator Range	Excursions trigger an inspection and corrective action. An excursion is defined as:	
	any operating condition where ΔP is less than 0.5" H ₂ O or greater than 10" H ₂ O.	the presence of visible emissions
4. Quality Improvement Plan (QIP) Threshold	Six excursions within a 6-month period.	Visible emissions for more than 30 minutes 3 times within a 6-month period

B. Performance Criteria		
1. Data Representativeness	Pressure taps are located at the control device inlet and outlet. The gauges have a minimum accuracy of 0.5" H ₂ O.	VE measurements are made at the emission points of the control devices
2. QA/QC Practices and Criteria	The pressure gauges are checked daily for operation according to manufacturer's criteria for operation and maintenance.	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.
3. Monitoring Frequency	Daily	
4. Data Averaging Period	n/a	
5. Data Collection	All readings are recorded daily	

Reporting [15A NCAC 02Q .0508(f); 40 CFR 64.9]

- d. The Permittee shall submit a summary report of all monitoring activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:
 - i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

SECTION 3- GENERAL CONDITIONS (version 5.2, 04/03/2018)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 02Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.

3. Minor Permit Modifications [15A NCAC 02Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.

4. Significant Permit Modifications [15A NCAC 02Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.

5. Reopening for Cause [15A NCAC 02Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]

a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:

- i. the changes are not a modification under Title I of the Federal Clean Air Act;
- ii. the changes do not cause the allowable emissions under the permit to be exceeded;
- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
- iv. the Permittee shall attach the notice to the relevant permit.

c. The written notification shall include:

- i. a description of the change;
- ii. the date on which the change will occur;
- iii. any change in emissions; and
- iv. any permit term or condition that is no longer applicable as a result of the change.

- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B. Other Requirements under 15A NCAC 02D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess

emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).

2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or
 - d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
 - a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
 - b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
 - c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
 - d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain

such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.

2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) – FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 02Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 02D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 02D .0202]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. Ambient Air Quality Standards [15A NCAC 02D .0501(c)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.

4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
 - a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
 - i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
 - ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
 - iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. Reopening for Cause [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. Reporting Requirements for Non-Operating Equipment [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. Specific Permit Modifications [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT to Permit No. 03873T34
Pilkington, North America, Inc.

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound